

Figure 1. Exemplary compounds of the invention.

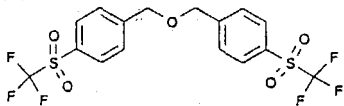
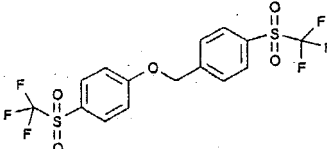
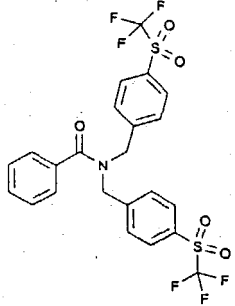
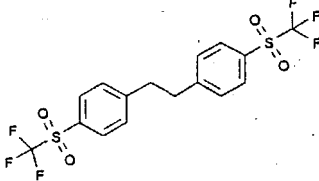
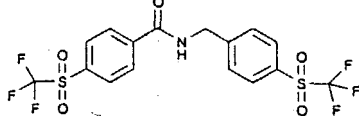
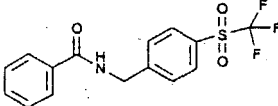
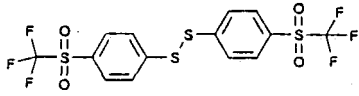
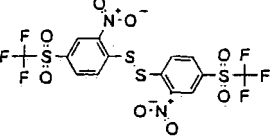
| EX. | STRUCTURE   | NAME   |
|-----|---|--|
| 1   |    | Bis(4-Trifluoromethylsulfonylbenzyl) ether                             |
| 2   |    | 4-Trifluoromethylsulfonylbenzyl 4-trifluoromethylsulfonylphenyl ether  |
| 3   |   | N,N-Bis(4-trifluoromethylsulfonylbenzyl)benzamide                      |
| 4   |  | 1,2-Bis(4-trifluoromethylsulfonylphenyl)ethane                         |
| 5   |  | N-(4-Trifluoromethylsulfonylbenzyl)-4-trifluoromethylsulfonylbenzamide |
| 6   |  | N-(4-Trifluoromethylsulfonylbenzyl)benzamide                           |
| 7   |  | Bis(4-Trifluoromethylsulfonylphenyl) disulfide                         |
| 8   |  | Bis-(2-Nitro-4-trifluoromethylsulfonylphenyl) disulfide                |

FIG. 1-A

| EX. | STRUCTURE | NAME  |
|-----|-----------|---|
| 8   |           | Bis-(2-Nitro-4-trifluoromethylsulfonylphenyl) disulfide                                 |
| 9   |           | 3,5-Bis-(4-trifluoromethanesulfonyl-phenoxy)-benzoic acid methyl ester                  |
| 10  |           | [3,5-Bis-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-phenyl]-acetic acid methyl ester  |
| 11  |           | 3,5-Bis-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-benzoic acid methyl ester          |
| 12  |           | 1,3-Bis-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-cyclopentane                       |
| 13  |           | 4-Methyl-2,6-bis-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-benzoic acid methyl ester |
| 14  |           | 4-[2-(2-Nitro-4-trifluoromethanesulfonyl-phenoxy)ethoxy]-benzoic acid methyl ester      |
| 15  |           | 4-[3-(2-Nitro-4-trifluoromethanesulfonyl-phenoxy)phenoxy]-benzoic acid                  |

FIG. 1-B

| EX. | STRUCTURE | NAME   |
|-----|-----------|--|
| 16  |           | 1-(3,5-Bis-trifluoromethyl-phenyl)-5-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-1H-pyrazole-3-carboxylic acid methyl ester |
| 17  |           | {4-[4-(2-Nitro-4-trifluoromethanesulfonyl-phenoxy)-benzenesulfonyl]-phenoxy}-acetic acid ethyl ester                         |
| 18  |           | 4-[3-(4-Trifluoromethanesulfonyl-phenoxy)-phenoxy]-benzoic acid  |
| 19  |           | {4-[4-(4-Trifluoromethanesulfonyl-phenoxy)-benzenesulfonyl]-phenoxy}-acetic acid ethyl ester                                 |
| 20  |           | N-(3-Trifluoromethanesulfonyl-phenyl)-2-{2-[(3-trifluoromethanesulfonyl-phenyl)carbamoyl]-methyl}-phenyl}-acetamide          |
| 21  |           | N-(3-Trifluoromethanesulfonyl-phenyl)-2-{3-[(3-trifluoromethanesulfonyl-phenyl)carbamoyl]-methyl}-phenyl}-acetamide          |
| 22  |           | N-(3-Trifluoromethanesulfonyl-phenyl)-2-{4-[(3-trifluoromethanesulfonyl-phenyl)carbamoyl]-methyl}-phenyl}-acetamide          |

FIG. 1-C

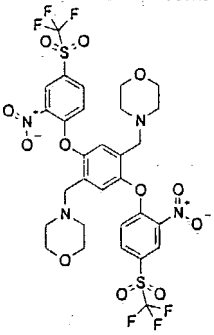
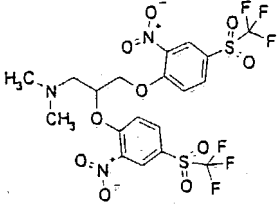
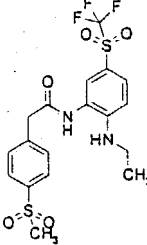
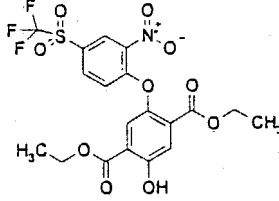
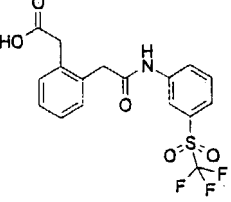
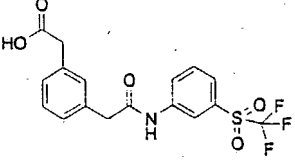
| EX. | STRUCTURE   | NAME  |
|-----|---|---|
| 23  |    | 3,6-Bis-(morpholin-4-ylmethyl)-2,5-bis-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-benzene       |
| 24  |    | [2,3-Bis-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-propyl]-dimethyl-amine                      |
| 25  |   | <i>N</i> -(2-Ethylamino-5-trifluoromethanesulfonyl-phenyl)-2-(4-methanesulfonyl-phenyl)-acetamide |
| 26  |  | 2-Hydroxy-5-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-terephthalic acid diethyl ester          |
| 27  |  | {2-[(3-Trifluoromethanesulfonyl-phenyl)carbamoyl]methyl}-phenyl}-acetic acid                      |
| 28  |  | {3-[(3-Trifluoromethanesulfonyl-phenyl)carbamoyl]methyl}-phenyl}-acetic acid                      |

FIG. 1-D

| EX. | STRUCTURE | NAME   |
|-----|-----------|--|
| 29  |           | {4-[(3-Trifluoromethanesulfonyl-phenyl)carbamoyl]methyl-phenyl}-acetic acid  |
| 30  |           | 3,5-Bis-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-benzamide   |
| 31  |           | 3,5-Bis-(4-trifluoromethanesulfonyl-phenoxy)-benzoic acid  |
| 32  |           | <i>N</i> -(4-Trifluoromethanesulfonyl-phenyl)-2-{2-[(4-trifluoromethanesulfonyl-phenyl)carbamoyl]-methyl-phenyl}-acetamide |
| 33  |           | <i>N</i> -(4-Trifluoromethanesulfonyl-phenyl)-2-{3-[(4-trifluoromethanesulfonyl-phenyl)carbamoyl]-methyl-phenyl}-acetamide |
| 34  |           | <i>N</i> -(4-Trifluoromethanesulfonyl-phenyl)-2-{4-[(4-trifluoromethanesulfonyl-phenyl)carbamoyl]-methyl-phenyl}-acetamide |

FIG. 1-E

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 PHOSPHATE MIMICS AND METHODS  
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 INHIBITORS

Atty. Dkt. No. 038602-1618  
 Prior Application SN 09/645,879

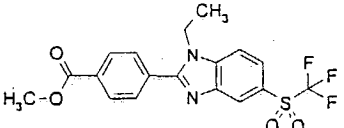
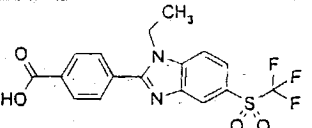
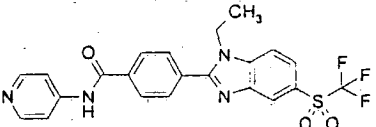
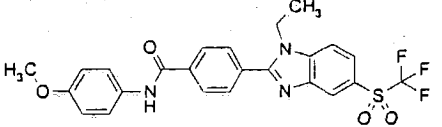
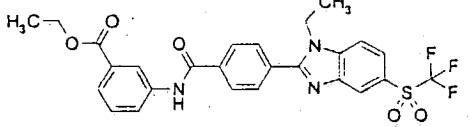
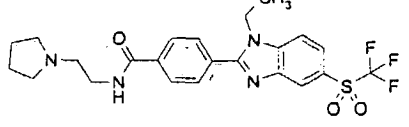
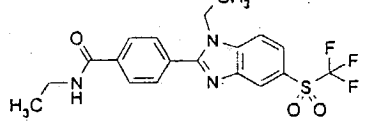
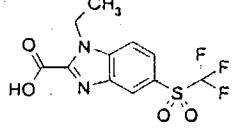
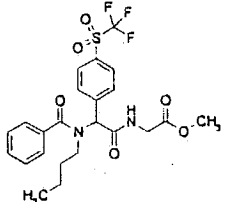
| EX. | STRUCTURE   | NAME   |
|-----|---|--|
| 35  |    | 4-(1-Ethyl-5-trifluoromethanesulfonyl-1H-benzoimidazol-2-yl)-benzoic acid methyl ester                 |
| 36  |    | 4-(1-Ethyl-5-trifluoromethanesulfonyl-1H-benzoimidazol-2-yl)-benzoic acid                              |
| 37  |    | 4-(1-Ethyl-5-trifluoromethanesulfonyl-1H-benzoimidazol-2-yl)-N-pyridin-4-yl-benzamide                  |
| 38  |    | 4-(1-Ethyl-5-trifluoromethanesulfonyl-1H-benzoimidazol-2-yl)-N-(4-methoxy-phenyl)-benzamide            |
| 39  |    | 3-[4-(1-Ethyl-5-trifluoromethanesulfonyl-1H-benzoimidazol-2-yl)-benzoylamino]-benzoic acid ethyl ester |
| 40  |  | 4-(1-Ethyl-5-trifluoromethanesulfonyl-1H-benzoimidazol-2-yl)-N-(2-pyrrolidin-1-yl-ethyl)-benzamide     |
| 41  |  | N-Ethyl-4-(1-ethyl-5-trifluoromethanesulfonyl-1H-benzoimidazol-2-yl)-benzamide                         |
| 42  |  | 1-Ethyl-5-trifluoromethanesulfonyl-1H-benzimidazole-2-carboxylic acid                                  |
| 43  |  | [2-(Benzoyl-butyl-amino)-2-(4-trifluoromethanesulfonyl-phenyl)-acetyl-amino]-acetic acid methyl ester  |

FIG. 1-F

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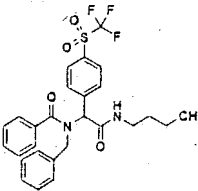
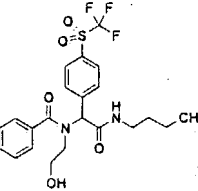
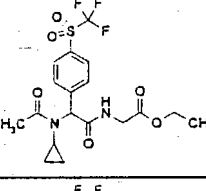
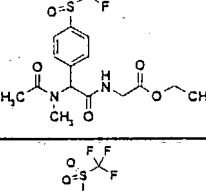
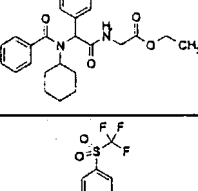
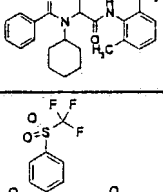
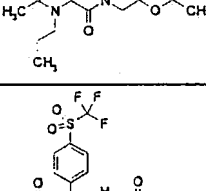
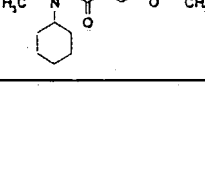
| EX. | STRUCTURE   | NAME  |
|-----|---|---|
| 44  |    | <i>N</i> -Benzyl- <i>N</i> -[butylcarbamoyl-(4-trifluoromethanesulfonyl-phenyl)-methyl]-benzamide                     |
| 45  |    | <i>N</i> -[Butylcarbamoyl-(4-trifluoromethanesulfonyl-phenyl)-methyl]- <i>N</i> -(2-hydroxy-ethyl)-benzamide          |
| 46  |    | [2-(Acetyl-cyclopropyl-amino)-2-(4-trifluoromethanesulfonyl-phenyl)-acetylamino]-acetic acid ethyl ester              |
| 47  |   | [2-(Acetyl-methyl-amino)-2-(4-trifluoromethanesulfonyl-phenyl)-acetylamino]-acetic acid ethyl ester                   |
| 48  |  | [2-(Benzoyl-cyclohexyl-amino)-2-(4-trifluoromethanesulfonyl-phenyl)-acetylamino]-acetic acid ethyl ester              |
| 49  |  | <i>N</i> -Cyclohexyl- <i>N</i> -[(2,6-dimethyl-phenylcarbamoyl)-(4-trifluoromethanesulfonyl-phenyl)-methyl]-benzamide |
| 50  |  | [2-(Acetyl-propyl-amino)-2-(4-trifluoromethanesulfonyl-phenyl)-acetylamino]-acetic acid ethyl ester                   |
| 51  |  | [2-(Acetyl-cyclohexyl-amino)-2-(4-trifluoromethanesulfonyl-phenyl)-acetylamino]-acetic acid ethyl ester               |

FIG. 1-G

| EX. | STRUCTURE | NAME   |
|-----|-----------|--|
| 52  |           | {4-[4-(2-Nitro-4-trifluoromethanesulfonyl-phenoxy)-benzenesulfonyl]-phenoxy}-acetic acid |
| 53  |           | 4-[2-(2-Nitro-4-trifluoromethanesulfonyl-phenoxy)ethoxy]-benzoic acid                    |
| 54  |           | 2,5-Bis-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-terephthalic acid diethyl ester     |
| 55  |           | 1-[2,3-Bis-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-propyl]-piperidine               |
| 56  |           | 4-[2,3-Bis-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-propyl]-morpholine               |
| 57  |           | [2,3-Bis-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-propyl]-(2-nitro-phenyl)-amine     |

FIG. 1-H



| EX. | STRUCTURE | NAME  |
|-----|-----------|---|
| 58  |           | 1-(2-Nitro-phenylamino)-3-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-propan-2-ol          |
| 59  |           | [2,3-Bis-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-propyl]-(4-nitro-phenyl)-amine        |
| 60  |           | 1-(4-Nitro-phenylamino)-3-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-propan-2-ol          |
| 61  |           | 4-[2-Hydroxy-3-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-propylamino]-benzenesulfonamide |
| 62  |           | 4-[2,3-Bis-(2-nitro-4-trifluoromethanesulfonyl-phenoxy)-propylamino]-benzenesulfonamide     |
| 63  |           | Bis-([4-(2-nitro-4-trifluoromethanesulfonyl)-phenoxy]-phenyl) sulfone                       |
| 64  |           | 2-[4-(Difluoro-methanesulfonyl)-phenyl]-5-naphthalen-2-yl-oxazole                           |

FIG. 1-I

| EX. | STRUCTURE | NAME  |
|-----|-----------|---|
| 65  |           | [2-Nitro-4-(1,1,2,2-tetrafluoro-ethanesulfonyl)-phenyl]-p-tolyl-amine |
| 66  |           | 1,2-Bis(4-trifluoromethylsulfonamidophenyl)ethane                     |
| 67  |           | 1,2-Bis(2-methyl-4-trifluoromethylsulfonamidophenyl)ethane            |
| 68  |           | 1,3-Bis(4-trifluoromethylsulfonamidophenoxy)-2,2-dimethylpropane      |
| 69  |           | 1,3-Bis(4-trifluoromethylsulfonamidophenoxy)propane                   |
| 70  |           | 1,4-Bis(4-trifluoromethylsulfonamidophenoxy)butane                    |
| 71  |           | 1,4-Bis(4-trifluoromethylsulfonamidophenoxy)benzene                   |
| 72  |           | 1-(4-Aminophenoxy)-4-trifluoromethylsulfonamidophenoxy benzene        |
| 73  |           | Bis(4-trifluoromethylsulfonamidophenyl) ether                         |

FIG. 1-J

| EX. | STRUCTURE | NAME   |
|-----|-----------|--|
| 74  |           | 1,3-Bis(4-trifluoromethylsulfonylamidophenoxy)benzene                                  |
| 75  |           | 2,5-Bis(4-trifluoromethylsulfonylamidophenyl)-(1,3,4)oxadiazole                        |
| 76  |           | Bis(4-trifluoromethylsulfonylamidophenyl)-1,4-diisopropylbenzene                       |
| 77  |           | 5-Trifluoromethanesulfonylamino-1H-indole-2-carboxylic acid                            |
| 78  |           | 1-Methyl-5-trifluoromethanesulfonylamino-1H-indole-2-carboxylic acid                   |
| 79  |           | (2-Methyl-5-trifluoromethanesulfonylamino-indol-1-yl)-acetic acid                      |
| 80  |           | 1-Methyl-5-trifluoromethanesulfonylamino-1H-indole-2-carboxylic acid phenylamide       |
| 81  |           | 5-Trifluoromethanesulfonylamino-1H-indole-2-carboxylic acid phenylamide                |
| 82  |           | 3-[(1-Methyl-5-trifluoromethanesulfonylamino-1H-indole-2-carbonyl)-amino]-benzoic acid |

FIG. 1-K

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| EX. | STRUCTURE | NAME  |
|-----|-----------|---|
| 83  |           | 3-[(5-Trifluoromethanesulfonylamino-1 <i>H</i> -indole-2-carbonyl)-amino]-benzoic acid        |
| 84  |           | 4-[(5-Trifluoromethanesulfonylamino-1 <i>H</i> -indole-2-carbonyl)-amino]-benzoic acid        |
| 85  |           | 4-[2-(2-Methyl-5-trifluoromethanesulfonylamino-indol-1-yl)-acetylamino]-benzoic acid          |
| 86  |           | 3-[2-(2-Methyl-5-trifluoromethanesulfonylamino-indol-1-yl)-acetylamino]-benzoic acid          |
| 87  |           | 4-[[2-(2-Methyl-5-trifluoromethanesulfonylamino-indol-1-yl)-acetylamino]-methyl]-benzoic acid |
| 88  |           | (2-Methyl-5-trifluoromethanesulfonylamino-indol-1-yl)-acetic acid <i>tert</i> -butyl ester    |
| 89  |           | 1-Methyl-5-trifluoromethanesulfonylamino-1 <i>H</i> -indole-2-carboxylic acid ethyl ester     |
| 90  |           | 6-Trifluoromethanesulfonylamino-naphthalene-2-carboxylic acid                                 |

FIG. 1-L

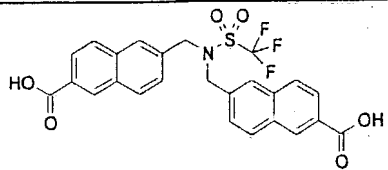
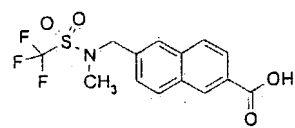
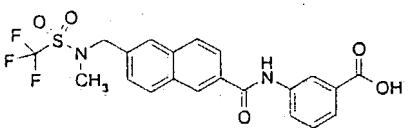
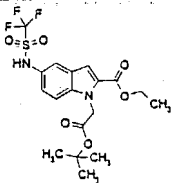
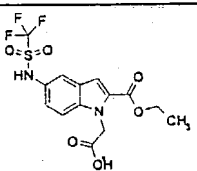
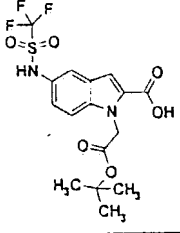
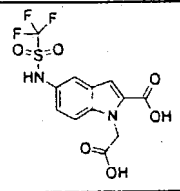
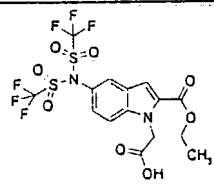
| EX. | STRUCTURE   | NAME  |
|-----|---|---|
| 91  |    | <i>N,N</i> -Bis[(6-carboxyl-naphthalen-2-yl)methyl] trifluoromethanesulfonamide                                       |
| 92  |    | 6-[(Methyl-trifluoromethanesulfonyl-amino)-methyl]-naphthalene-2-carboxylic acid                                      |
| 93  |    | 3-({6-[(Methyl-trifluoromethanesulfonyl-amino)-methyl]-naphthalene-2-carbonyl}-amino)-benzoic acid                    |
| 94  |    | 1- <i>tert</i> -Butoxycarbonylmethyl-5-trifluoromethanesulfonylamino-1 <i>H</i> -indole-2-carboxylic acid ethyl ester |
| 95  |   | 1-Carboxymethyl-5-trifluoromethanesulfonylamino-1 <i>H</i> -indole-2-carboxylic acid ethyl ester                      |
| 96  |  | 1- <i>tert</i> -Butoxycarbonylmethyl-5-trifluoromethanesulfonylamino-1 <i>H</i> -indole-2-carboxylic acid             |
| 97  |  | 1-Carboxymethyl-5-trifluoromethanesulfonylamino-1 <i>H</i> -indole-2-carboxylic acid                                  |
| 98  |  | 1-Carboxymethyl-5-( <i>N,N</i> -ditrifluoromethanesulfonyl)amino-1 <i>H</i> -indole-2-carboxylic acid ethyl ester     |

FIG. 1-M

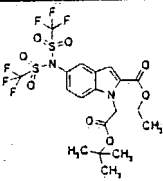
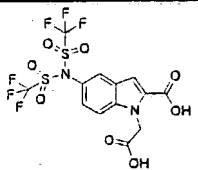
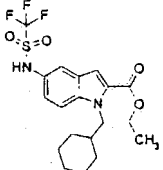
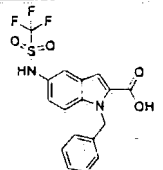
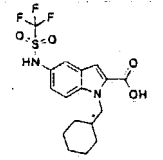
| EX. | STRUCTURE  | NAME   |
|-----|--|--|
| 99  |   | 1- <i>tert</i> -Butoxycarbonylmethyl-5-( <i>N,N</i> -ditrifluoromethanesulfonyl)amino-1 <i>H</i> -indole-2-carboxylic acid ethyl ester |
| 100 |   | 1-Carboxymethyl-5-( <i>N,N</i> -ditrifluoromethanesulfonyl)amino-1 <i>H</i> -indole-2-carboxylic acid                                  |
| 101 |   | 1-Cyclohexylmethyl-5-trifluoromethanesulfonylamino-1 <i>H</i> -indole-2-carboxylic acid ethyl ester                                    |
| 102 |   | 1-Benzyl-5-trifluoromethanesulfonylamino-1 <i>H</i> -indole-2-carboxylic acid  |
| 103 |  | 1-Cyclohexylmethyl-5-trifluoromethanesulfonylamino-1 <i>H</i> -indole-2-carboxylic acid  |

FIG. 1-N